INDIANA UNIVERSITY
BLOOMINGTON, INDIANA

Science Hall 101
DEPARTMENT OF ZOOLOGY

March 16, 1950

Dr. Joshua Lederberg
Department of Genetics
The University of Wisconsin
Madison 6, Wisconsin

Dear Lederberg:

The results you mention are exciting, and I'm glad they're stimulating you to consider the need for a comprehensive attack. I was especially glad to get your letter because I too have felt the need for such an attack, although I have not yet had experience with the chemical production of mutations. I hope that we can get together some time soon and talk over the possibility of getting support for work of a whole group, dealing with different organisms or phases of the work at different institutions. The attack could be carried on at several levels, the first level being your attack on bacteria. The cheapest mammals, mice, are so expensive in such work that there ought to be an in-between level or levels as well. I think Drosophila should come in as an in-between level and possibly one or more "cellular" plants, such as Neurospora and/or Oenothera. I am thinking of the latter (Oenothera) only because it might lend itself rather readily to the detection of gross structural changes in chromosomes and because Cleland's interest in doing that might perhaps be aroused.

Your letter came this morning and I went right over to Cleland about it because he is the one who would have to officially initiate such a project if it were to be sponsored by the National Research Council. He maintained a cautious attitude but I think he might be convinced, though it may be that some more publications along these lines will have to appear first, or at least he will have to be shown more definite evidence. He says he does not want the NRC to go on a big money raising campaign and have it turn out to be "a wild goose chase". (Of course I tell you this only confidentially.)

In my opinion the matter should be put on a broader basis than one of only looking for mutagenic chemicals that might be received from outside. It ought to include an attack on biological conditions which are predisposed to or against mutations, of different kinds. And while direct, though long-in-maturing, practical value for humanity in helping us to avoid mutations should be the most important angle in getting people to agree to give funds, the funds ought explicitly to be given for fundamental mutation study in general. One can, to a certain extent, get money (and a few people can get a lot of it) for radiation mutation work,

as from the AEC, but that is by no means broad enough as an attack. And while Hollaender is beginning to realize that spontaneous mutations and chemical should be studied too, I do not think all that work should be left to Oak Ridge or that enough of it can be done there. Nevertheless, when mouse work is under consideration in the broader program, the Russells, who are doing radiation mutation work on mice at Oak Ridge, should be asked to join in the planning, and probably Hollaender too. As I am a consultant in that work, I could throw out feelers in that direction when the time seemed propitious.

My own work is dependent on cancer grants and, as I expected, the cancer people are pulling the purse strings tighter when it comes to giving money for genetics. It is not right that mutation work should have to be a tail to the cancer kite. I think the time has come when it ought to be recognized in its own right and that we ought to make an effort to get a movement to support it started by the NRC, unless some more suitable agency can be found. We have to proceed very cautiously, however, so I should like to talk it over with you privately before much more is done. If there were to be another meeting of the phage genetics group soon which we both were to attend, we could do it there, but that might be waiting too long. Are you expecting to have to come east within the next few weeks? If so, you should plan to stop here on the way.

With kindest personal regards,

Yours sincerely,

H. J. Muller

HJM:hs